

The Journal of Borderland Research

VOLUME XLIII, No. 2

March-April 1987

* TABLE OF CONTENTS *

GIORDANO BRUNO - The Forgotten Philosopher John J. Kessler, Ph.D.....	1-6
ETHER Dale Pond.....	7-11
THE BIEFIELD-BROWN EFFECT Carl Frederick Krafft.....	11
FINE FORCES AND THE PLANT Trevor James Constable.....	12-13
TREMENDOUS POSSIBILITIES OF RADIO An Interview With Nikola Tesla J.P. Glass.....	14-15
THE AL-CHOOS GENERATOR Albert Zock.....	16-17
GEOMETRY: IN SUPPORT OF THE ETHERIC Michael Theroux.....	18
FUNCTIONAL THINKING An Interview With Eric P. Dollard Tom Brown.....	19-29
CLIPS, QUOTES & COMMENTS New Surroundings * The Focus * Hundredth Monkey Grooviness * The Old Order * Elixir Of The Ageless * Psionic 101 * Contacts * BSRF Business * Primary Energy Weather Engineering * New BSRF Publications * Four Great American Inventors *.....	30-36

The Journal of Borderland Research

VOLUME XLIII, No. 2

March-April 1987

THE JOURNAL OF BORDERLAND RESEARCH is a publication of Borderland Sciences Research Foundation, Inc., P.O. Box 429, Garberville CA 95440-0429 USA. The Journal is edited by Thomas Joseph Brown, Director of BSRF, and is published six issues a year (bi-monthly) with the assistance of the BSR Associates. BSRF phone number is (707) 986-7211. Please call during business hours.

BORDERLAND SCIENCES RESEARCH FOUNDATION, Inc. is a non-profit organization (California State Charter) of people who take an active interest in unusual happenings along the Borderland between the visible and invisible worlds. The main subjects of inquiry include Ether Physics, Radionics and Radiesthesia, Tesla Technology, Dow-sing, Hollow Earth, Anomalies and Fortean Phenomenon, Hypnosis, Photography of the Invisible and Unidentified Flying Objects.

BSRF is under the Directorship of Thomas Joseph Brown. Alison Davidson is the Secretary-Treasurer. Eric P. Dollard, Wireless Engineer, is the corporation Vice-President. Michael Theroux is the Mailroom Manager. The Foundation is incorporated under California law, May 21, 1951, (#245263), and has been in continuous existence since then. BSRF was founded by N. Meade Layne in February 1945 with the issuance of the first Round Robin, the original title of the Journal of Borderland Research. Meade Layne was the first director from 1945 to 1959. Riley Hansard Crabb was second director from 1959 to 1985.

MEMBERSHIP in the BSR Foundation is \$20 US worldwide, sent surface. Supporting membership is \$25. Add \$10 for First Class or Air Mail postage. Membership gives you one year of the Journal (six issues) and discounts on BSRF publications and products.

The Main Function of BSRF is to act as a clearinghouse for information. Active research is being carried out also. Results of researches and other pertinent information is printed in the Journal of Borderland Research.

Support for the Foundation comes from sales of books and memberships. We do not carry any paid advertising. A catalog will be mailed to all on our mailing list when ready. A S.A.S.E. will get you the current price list. BSRF is chartered to receive donations and bequests, and we will accept them if sent, but we would rather you get something for your money so we promote reading of our literature.

THE JOURNAL OF BORDERLAND RESEARCH is a Freethought Scientific Forum investigating the living energy of our universe. All information is presented for informational and research purposes only. Authors are solely responsible for the opinions they express. In no way is BSRF material to be taken as medical advice. We are not qualified to give it and do not want to promote any false hopes. BSRF functions on the Universal Principle of the Free Flow of Information and we stand on our U.S. Constitutional Rights of Free Speech and Free Press.

GIORDANO BRUNO

THE FORGOTTEN PHILOSOPHER

JOHN J. KESSLER, Ph.D., Ch.E.

In the year 1548 an Italian boy was born in the little town of Nola, not far from Vesuvius. Although he spent the greater part of his life in hostile and foreign countries he was drawn back to his home at the end of his travels and after he had written nearly twenty books.

When he was thirteen years old he began to go to school at the Monastery of Saint Domenico. It was a famous place. Thomas Aquinas, himself a Dominican, had lived there and taught. Within a few years Bruno had become a Dominican priest.

It was not long before the monks of Saint Domenico began to learn something about the extraordinary enthusiasm of their young colleague. He was frank, outspoken and lacking in reticence. It was not long before he got himself into trouble. It was evident that this boy could not be made to fit into Dominican grooves. One of the first things that a student has to learn is to give the teacher the answers that the teacher wants. The average teacher is the preserver of the ancient landmarks. The students are his audience. They applaud but they must not innovate. They must learn to labor and to wait. It was not Bruno's behavior but his opinions that got him into trouble.

He ran away from school, from his home town, from his own country and tried to find among strangers and foreigners a congenial atmosphere for his intellectual integrity that he could not find at home. It is difficult not to get sentimental about Bruno. He was a man without a country and, finally, without a church.

Bruno was interested in the nature of ideas. Although the name was not yet invented it will be perfectly proper to dub Bruno as an epistemologist, or as a pioneer Semanticist. He takes fresh stock of the human mind.

It is an interesting fact that here, at the close of the 16th



GIORDANO BRUNO
Filosofo, arso vivo a Roma,
PER VOLONTÀ DEL PAPA
IL 17 FEBBRAIO 1600

Century, a man, closed in on all sides by the authority of priestly tradition, makes what might be termed a philosophical survey of the world which the science of the time was disclosing. It is particularly interesting because it is only in the 20th Century that the habit of this sort of speculation is again popular. Bruno lived in a period when philosophy became divorced from science. Perhaps it might be better to say that science became divorced from philosophy. Scientists became too intrigued with their new toys to bother about philosophy. They began to busy themselves with telescopes and microscopes and chemical glassware.

In 1581 Bruno went to Paris and began to give lectures on philosophy. It was not an uncommon thing for scholars to wander from place to place. He made contacts easily and was able to interest any group with whom he came in contact with the fire of his ideas. His reputation reached King Henry III who became curious to look over this new philosophical attraction. Henry III was curious to find out if Bruno's art was that of the magician or the sorcerer. Bruno had made a reputation for himself as a magician who could inspire greater memory retention. Bruno satisfied the king that his system was based upon organized knowledge. Bruno found a real patron in Henry III and it had much to do with the success of his short career in Paris.

It was about this time that one of Bruno's earliest works was published, De Unbris Idearum, The Shadows of Ideas, which was shortly followed by Ars Memoriae, Art of Memory. In these books he held that ideas are only the shadows of truth. The idea was extremely novel in his time. In the same year a third book followed: Brief Architecture of the Art of Lully with its Completion. Lully had tried to prove the dogmas of the church by human reason. Bruno denies the value of such mental effort. He points out that Christianity is entirely irrational, that it is contrary to philosophy and that it disagrees with other religions. He points out that we accept it through faith, that revelation, so called, has no scientific basis.

QUESTIONING KNOWLEDGE

In his fourth work he selects the Homeric sorcerer Circi who changed men into beasts and makes Circi discuss with her handmaiden a type of error which each beast represents. The book Cantus Circaeus, The Incantation of Circe, shows Bruno working with the principle of the association of ideas, and continually questioning the value of traditional knowledge methods.

In the year 1582, at the age of 34 he wrote a play Il Candelajo, The Chandler. He thinks as a candlemaker who works with tallow and grease and then has to go out and vend his wares with shouting and ballyhoo:

"Behold in the candle borne by this Chandler, to whom I give birth, that which shall clarify certain shadows of ideas...I need not instruct you of my belief. Time gives all and takes all away; everything changes but nothing perishes. One only is immutable, eternal and ever endures, one and the same with itself. With this philosophy my spirit grows, my mind expands. Whereof, however obscure the night may be, I await the daybreak, and they who dwell in day look for night...Rejoice therefore, and keep whole, if you can, and return love for love."

There came a time when the novelty of Bruno had worn off in France and he felt that it was time to move on. He went to England to begin over again and to find a fresh audience. He failed to make scholastic contact with Oxford. Oxford, like other European universities of this time, paid scholastic reverence to the authority of Aristotle. A great deal has been written about the Middle Ages being throttled by the dead hand of Aristotle. It was not the methods of Aristotle nor the fine mind of Aristotle which were so much in question as it was the authority of Aristotle. A thing must be believed because Aristotle said it. It was part of the method of Bruno to object in his own strenuous fashion to the cramming down one's throat of statements when they were plainly at variance with the fresh sense experience which science was producing.

In his work The Ash Wednesday Supper, a story of a private dinner, being entertained by English guests, Bruno spreads the Copernican doctrine. A new astronomy had been offered the world at which people were laughing heartily, because it was at variance with the teachings of Aristotle. Bruno was carrying on a spirited propaganda in a fighting mood. Between the year 1582 and 1592 there was hardly a teacher in Europe who was persistently, openly and actively spreading the news about the universe which Copernicus had charted, except Giordano Bruno. A little later on another and still more famous character was to take up the work: Galileo.

Galileo never met Bruno in person and makes no mention of him in his works, although he must have read some of them. We may not blame Galileo for being diplomat enough to withhold mention of a recognized heretic. Galileo has often been criticized because he played for personal safety in the matter of his own difficulties. We demand a great deal of our heroes.

WILD, RADICAL, SUBVERSIVE and DANGEROUS

While in England Bruno had a personal audience with Queen Elizabeth. He wrote of her in the superlative fashion of the time calling her diva. Protestant Ruler, sacred, divine, the very words he used for His Most Christian Majesty and Head of The Holy Roman Empire. This was treasured against him when he was later brought to trial as an atheist, an infidel and a heretic. Queen Elizabeth did not think highly of Bruno. She thought him as wild, radical, subversive and dangerous. Bruno found Englishmen rather crude.

Bruno had no secure place in either Protestant or Roman Catholic religious communities. He carried out his long fight against terrible odds. He had lived in Switzerland and France and was now in England and left there for Germany. He translated books, read proofs, and got together groups and lectured for whatever he could get out of it. It requires no great stretch of the imagination to picture him as a man who mended his own clothes, who was often cold, hungry and shabby. There are only a few things that we know about Bruno with great certainty and these facts are the ideas which he left behind in his practically forgotten books, the bootleg literature of their day. After twenty years in exile we can picture him as homesick, craving the sound of his own native tongue and the companionship of his own countrymen. But he continued to write books. In his book De la Causa, principio et uno, On Cause, Principle, and Unity we find prophetic phrases:

"This entire globe, this star, not being subject to death, and dissolution and annihilation being impossible anywhere in Nature, from time to time renews itself by changing and altering all its parts. There is no absolute up or down, as Aristotle taught; no absolute position in space; but the position of a body is relative to that of other bodies. Everywhere there is incessant relative change in position throughout the universe, and the observer is always at the centre of things."

FURTHER WORKINGS OF AN OPEN MIND

His other works were The Infinity, The Universe and Its Worlds, The Transport of Intrepid Souls, and Cabala of the Steed like unto Pegasus with the Addition of the Ass of Cyllene, an ironical discussion of the pretensions of superstition. This "ass," says Bruno, is to be found everywhere, not only in the church but in courts of law and even in colleges. In his book The Expulsion of the Triumphant Beast he flays the pedantries he finds in Catholic and Protestant cultures. In yet another book The Threefold Leas and Measure of the Three Speculative Sciences and the Principle of Many Practical Arts, we find a discussion on a theme which was to be handled in a later century by the French philosopher Descartes. The book was written five years before Descartes was born and in it he says: "Who so itcheth to Philosophy must set to work by putting all things to the doubt."

He also wrote Of the Unit, Quantity and Shape and another work On Images, Signs and Ideas, as well as On What is Immense and Innumerable; Exposition of the Thirty Seals and List of Metaphysical Terms for Taking the Study of Logic and Philosophy in Hand. His most interesting title is One Hundred Sixty Articles Directed Against the Mathematics and Philosophers of the Day. One of his last works, The Fastenings of Kind, was unfinished.

PIONEERING FREETHOUGHT

It is easy to get an impression of the reputation which Bruno had created by the year 1582 in the minds of the clerical authorities of southern Europe. He had written of an infinite universe which had left no room for that greater infinite conception which is called God. He could not conceive that God and nature could be separate and distinct entities as taught by Genesis, as taught by the Church and as even taught by Aristotle. He preached a philosophy which made the mysteries of the virginity of Mary, of the crucifixion and the mass, meaningless. He was so naive that he could not think of his own mental pictures as being heresies. He thought of the Bible as a book which only the ignorant could take literally. The Church's methods were, to say the least, unfortunate, and it encouraged ignorance from the instinct of self-preservation.

Bruno wrote: "Everything, however men may deem it assured and evident, proves, when it is brought under discussion to be no less doubtful than are extravagant and absurd beliefs." He coined the phrase "Libertes philosophica." The right to think, to dream, if you like, to make philosophy. After 14 years of wandering about Europe Bruno turned his steps toward home. Perhaps he was homesick. Some writers have it that he was framed. For Bruno to go back to Italy is as strange a paradox as that of the rest of his life.

He was invited to Venice by a young man whose name was Mocenigo, who offered him a home and who then brought charges against him before the Inquisition. The case dragged on. He was a prisoner in the Republic of Venice but a greater power wanted him and he was surrendered to Rome. For six years, between 1593 and 1600 he lay in a Papal prison. Was he forgotten, tortured? Whatever historical records there are never have been published by those authorities who have them. In the year 1600 a German scholar Schoppius happened to be in Rome and wrote about Bruno, who was interrogated several times by the Holy Office and convicted by the chief theologians. At one time he obtained forty days to consider his position; by and by he promised to recant, then renewed his "follies." Then he got another forty days for deliberation but did nothing but baffle the pope and the Inquisition. After two years in the custody of the Inquisitor he was taken on February ninth to the palace of the Grand Inquisitor to hear his sentence on bended knee, before the expert assessors and the Governor of the City.

DEATH BY FIRE

Bruno answered the sentence of death by fire with the threatening: "Perhaps you, my judges, pronounce this sentence against me with greater fear than I receive it." He was given eight more days to see whether he would repent. But it was no use. He was taken to the stake and as he was dying a crucifix was presented to him, but he pushed it away with fierce scorn.

They were wise in getting rid of him for he wrote no more books, but they should have strangled him when he was born. As it turned out, they did not get rid of him at all. His fate was not an unusual one for heretics; this strange madcap genius was quickly forgotten. His works were honored by being placed on the Index expurgatorius on August 7, 1603, and his books became rare. They never obtained any great popularity.

In the early part of the 18th Century English deists rediscovered Bruno and tried to excite the imagination of the public with the retelling of the story of his life, but this aroused no particular enthusiasm.

The enthusiasm of German philosophy reached the subject of Bruno when Jacobi (1743-1819) drew attention to the genius of Bruno and German thinkers generally recognized his genius but they did not read his books. In the latter part of the 19th Century Italian scholars began to be intrigued with Bruno and for a while "Bruno Mania" was part of the intellectual enthusiasm of cultured Italians. Bruno began to be a symbol of scientific martyrdom. Bruno was a truant, a philosophical tramp, a poetic vagrant, but has no claims to the name of scientist. His works are not found in American libraries. In this age of biographical writing it is surprising that no modern author has attempted to reconstruct his life, important because it is in the direct line of modern progress. Bruno was a pioneer who roused Europe from its long intellectual sleep. He was martyred for his enthusiasm.

Bruno was born five years after Copernicus died. He had bequeathed an intoxicating idea to the generation that was to follow him. We hear a lot in our own day about the expanding universe. We

have learned to accept it as something big. The thought of the Infinity of the Universe was one of the great stimulating ideas of the Renaissance. It was no longer a 15th Century God's backyard. And it suddenly became too vast to be ruled over by a 15th Century God. Bruno tried to imagine a god whose majesty should dignify the majesty of the stars. He devised no new metaphysical quibble nor sectarian schism. He was not playing politics. He was fond of feeling deep thrills over high visions and he liked to talk about his experiences. And all of this refinement went through the refiners' fire -- that the world might be made safe from the despotism of the ecclesiastic 16th Century Savage. He suffered a cruel death and achieved a unique martyr's fame. He has become the Church's most difficult alibi. She can explain away the case of Galileo with suave condensation. Bruno sticks in her throat.

He is one martyr whose name should lead all the rest. He was not a mere religious sectarian who was caught up in the psychology of some mob hysteria. He was a sensitive, imaginative poet, fired with the enthusiasm of a larger vision of a larger universe...and he fell into the error of heretical belief. For this poet's vision he was kept in a dark dungeon for eight years and then taken out to a blazing market place and roasted to death by fire.

It is an incredible story.

The "Church" will never outlive him.

*** *** *** finis *** *** ***

THE OREGONIAN, WEDNESDAY, JUNE 14, 1967

French Scientists Experiment With Sonic Death-Ray Machine

By FRANK DORSEY

The London Sunday Times

LONDON — A team of French scientists in Marseilles is working on a death-ray machine designed to provide an entirely novel method of human destruction.

The project began when the electro-acoustical laboratory of the French National Center for Scientific Research moved. To study this phenomenon, into a new building three years ago. Staff complained of headaches and nausea. Then they turned on the investigations began. Electro-

magnetic waves were suspect. "That first test nearly costed and eliminated. So were all our lives," Prof. Gavreau says. "Luckily, we were able to turn it off fast. All of us were sick for hours. Every-

thing in us was vibrating — stomach, heart, lungs. All the people in the other laboratories were sick, too. They were very angry with us."

From then on, the team worked at lowering the frequency, but carefully kept the power input down. It was discovered that the wave-

length most dangerous to life

is 7 vibrations per second. At 7 hertz, turned on very softly, one has a vague impression of sound and a feel-

ing of general discomfort. At 3.5, nothing can be heard di-

rectly, but there is a curious incidental effect. Nearby

sounds, such as air hissing

Sound is a succession of waves in which the air is al-

ternately compressed and de-

compressed. Fast vibrations

either go right through solid

objects or bounce off them.

The team has suffered from usually doing relatively little its experiments. Some of the

invisible injuries appear to be persistent.

"It not only affects the ears," Gavreau says, "but it works directly on the internal organs. There is a rubbing between the various organs because of a sort of resonance. It provokes an irritation so intense that for hours afterwards any low-pitched sound seems to echo through one's body."

In developing a military weapon, the scientists intend to revert to the policeman's whistle form, perhaps as big as 18 feet across, mount it on a truck and blow it with a fan turned by a small airplane engine. It could kill a man five miles away.

There is one snag. At present, the machine is as dangerous to its operators as the enemy. The team is working on a way to focus it.

Various systems of baffles have been tried, but the most promising method appears to be propagation of a different and complementary sound wave length backwards from the machine. This changes the frequency of air wave lengths moving in that direction, thus protecting anyone to the rear.

ETHER

by Dale Pond
editor of

The Journal of Sympathetic Vibratory Physics

The ether is the universal agent of energy and only through it are motion and attendant phenomena produced. It may very properly be called the "Soul of Things."

Its sympathetic activity and infinite tenuity give it a frequency so great as to evolve self-luminescence. This same luminescent ether is bound latent in the corpuscular embrace in all aggregated matter until liberated by a "compound vibratory negative medium" - heat, vibration or sympathetic negative attraction. This very property of self-luminescence evidenced by the ether indicates a still greater region beyond.

Hertz conjectured that a knowledge of the structure of the ether would reveal the essence of matter itself together with its inherent properties, weight and inertia. He said, "Soon the question set by modern physics will be 'Are not all things due to conditions of the ether?'" He discovered in 1888 that the ether had been imprisoned and used as a fulcrum for electric attraction and repulsion in every electromagnetic engine, without any scientist even so much as suspecting it before. Pythagoras considered the Ether as a divine luminous principle which prevades and permeates all things. The German mystics called it the "Weltgeist" or "Astral Light." Newton believed that through its activity and strength bodies were caused to attract each other and adhere.

Celestial sympathetic radiation of the "compound interetheric" is the fountain head from which all aggregate matter is formed, the controlling force in all aggregations. If there were no radiation from the great Celestial Center, space would be void.

Quoting John Ernst Worrell Keely, the father of Sympathetic Vibratory Physics, "The luminiferous ether - the compound-interetheric element - in other words, celestial mind force - is the substance of which all visible and invisible things are composed. It is the great sympathetic protoplastic element - life itself. Its sympathetic outreach is mind flow - or will force - actuating sympathetic polarization to produce action and sympathetic depolarization to neutralize it. Polar and depolar differentiation result in motion. The ether has for its attendants gravity, electricity and magnetism, the triple conditions born of itself. It is the Soul of Matter, from which all forms of motion receive their introductory impulse."

"Corpuscular activity represents the outflow of the ether from the luminiferous toward neutral centers of aggregation revealing the connecting link between mind and matter. This luminosity has no thermal accompaniment, although, paradoxically, all thermal conditions emanate from etheric vibration. The tenuity of the ether accounts for this. It is only when the streams come in contact with crude matter that heat is evolved from its latent state together with a different order of light, from the luminiferous ether, the sun being the intermediate transmitter."

"Were it not for the intense vortex motion attending the dissociation of water into Hydrogen and Oxygen, the ether could not be held suspended either in the molecular or atomic envelopes. This vortex action is caused by the differential conflict between terrestrial condensation and solar tensions, the outflow and inflow, which also produces light."

"The attractive property of the interetheron for streams of coincidence (the nodes of resonant vibrations) is not a magnetic force exercised by itself. The magnet is susceptible to only certain forms of aggregate matter iron for instance and its preparations."

Keely mentions a frequency which he claims to have produced of 156,057,552,198,220,000 per second in the spherical engine and stated he believed this to be only a minute fraction of the frequencies governing the "far luminous centers."

He at last came to the conclusion that it was impossible to use the ether directly in an engine as we now use and control steam and electricity. He therefore turned his attention after this to the use of the ether merely as a medium for "sympathetic vibration associated positively with the polar stream" in his magnetic engine.

Keely does not give an analysis of the structure of the etheric subdivision of matter, but from the fact that he was able to subdivide it through the same process of "triple subdivision" into "interetherons" we may assume that three interetherons, each with its etheric capsule whirling about it, existed within the envelope of the etheron, vibrating with an oscillatory frequency greater than any of the lower subdivisions.

Keely continues: "The fundamental mode of vibration changes as we reach the fifth subdivision, to the dominant, the diatonic third of the mass chord, which controls the vibratory states of both etheron and interetheron. The awful might concealed in the depths of the etheric and interetheric subdivisions utterly transcends anything Science has ever known. Even the theoretical energy value of radium now accepted by Science, pales into insignificance in comparison to the energy value of an equal amount of water subdivided to the etheric or interetheric state."

MORE KEELY QUOTES ON THE ETHER...

"Yet, notwithstanding Professor Crooke's psychical researches and Professor Rucker's experiments in molecular vibration, demonstrating that molecules seem to have a "mental attribute, a sort of expression of free will," physicists still look upon the human organism as little more than a machine, taking small interest in experiments which evince the dominion of spirit over matter. Keely's researches in this province have shown him that it is neither the electric nor the magnetic flow, but the etheric, which sends its current along our nerves; that the electric and magnetic flows bear but an infinitely small ratio to the etheric flow, both as to velocity and tenuity; that true coincidents can exist between any mediums, - cartilage to steel, steel to wood, wood to stone, and stone to cartilage; that the same influence, sympathetic association, which governs all the solids holds the same control over all liquids, and again from liquid to solid, embracing the three kingdoms, animal, vegetable, and mineral; that the action of mind over matter thoroughly substantiates these incontrovertible laws of sympathetic etheric influence; that the only true medium which exists in nature is the sympathetic flow emanating from the normal human brain, governing correctly the graduating and setting-up of the true sympathetic vibratory positions in machinery, necessary to commercial success; that these flows come in on the order of the fifth and seventh positions of atomic subdivision; that if metallic mediums are brought under the influence of this sympathetic flow they become organisms which carry the same influence with them that the human brain does over living physical positions, and that the composition of metallic and that of physical organisms are one and the same thing, although the molecular arrangement of the physical may be entirely opposite to the metallic on their aggregations; that the harmonious chords induced by sympathetic positive vibration permeate the molecules in each, notwithstanding, and bring about the perfect equation of any differentiation that may exist, - in one the same as in the other, - and thus they become one and the same medium for sympathetic transmission; that the etheric (or mind) flow is of a tenuity coincident to the condition governing the seventh subdivision of matter, a condition of subtlety that readily and instantaneously permeates all forms of aggregated matter, from air to solid hammered steel, the velocity of the permeation being the same with the one as with the other; that the tenuity of the etheric flow is so infinitely fine that a magnifying glass, the power of which would enlarge the smallest grain of sand to the size of the sun, brought to bear upon it would not make its structure visible to us; and that, light traversing space at the speed of two hundred thousand miles per second, a distance requiring light a thousand centuries to reach would be traversed by the etheric flow in an indefinite fragment of a second." Bloomfield-Moore

"Ether is an atomolic liquid 986,000 times the density of steel." Keely in Dashed_Against_the_Bock.

"Keely proved the uselessness of building engines to employ the ether as a motive force." Bloomfield-Moore

"In Keely's theories all is mechanical in nature. A molecule of steel, a molecule of gas, a molecule of brain matter are all of the one primeval substance - the Ether." Chapter 9 of Keely's Discoveries.

"The velocity of the etheric shell is 600,000 miles per second times the ratio in size of a 12 inch diameter sphere to that of the diameter of a molecule." Keely in Keely's Discoveries.

The etheric is a term used by Keely to designate those rates of vibrations between the 45th and 60th octaves of the Electromagnetic Spectrum (see issue #9).

S. Zolver Preston, in his Physics_of_the_Ether, says: "A quantity of matter representing a total mass of only one grain, and possessing the normal velocity of the ether particles, that of a wave of light, encloses a state of energy represented by upward of one thousand millions of foot tons. Or the mass of a single grain contains an energy not less than that possessed by a mass of 70,000 tons, moving at the speed of a cannon ball (1200 feet per second); or, otherwise, a quantity of matter, representing a mass of one grain, imbued with the velocity of the ether particles, encloses an amount of energy which, if entirely utilized, would be competent to project a weight of 100 tons to a height of one mile and nine-tenths of a mile." (Bloomfield-Moore in Keely's Discoveries)

A FEW QUOTES FROM EDGAR CAYCE ON THE ETHER...

"Etheronic energy is the emanation from the spirit force through the active force of that which makes for matter being held in its positive position, or in its space of activity. Hence thought as a body, whether of animal or plant, is shown as of plant receiving in its freshness of vigor influences that come from or through the etheronic energy in its activity upon the body, in the expression or upon the plant as in its expression. Hence things that are equal to the same thing are equal to each other." (440-13) Edgar Cayce

Q.: What is the best substance for induction, conduction, transmission of etheronic energy?

A.: "This is as raised power that would be produced from a combination of crystal. This should be rather interesting to this body,

for it is very much like that used by the body in destructive forces in the Atlantean sojourn! Not that which caused the cosmic ray, or the death ray, or the healing ray - but the ray that came from setting of the prismatic influences from high heating - it may be from Arcturus or it may be from the Sun; though Arcturus would be nearer proper. The Sun may be induced to make for destructive or constructive forces, either one. It's a combination of those forces or rays that may be gathered in certain settings or prisms. It would require a lot of detail in preparing ~~same~~." (440-3) Edgar Cayce

"Etheronic energy is mental control." (443-5) Edgar Cayce

For more information on Sympathetic Vibratory Physics send \$2.00 for a sample issue of The Journal of Sympathetic Vibratory Physics, to Dale Pond, editor, Delta Spectrum Research, Inc. 2100 Mediterranean Ave. Suite #16, Virginia Beach, Va. 23451 (804) 545-5151.

THE BIEFELD-BROWN EFFECT

by
Carl Frederick Krafft

This interesting phenomenon consists of the tendency of a charged electric condenser to move in the direction of the positive pole, despite the principle of action and reaction.

In an electric condenser, just as in a hydrogen atom, there is a direct flow of ether from the positive charge to the negative charge. Since the ether is incompressible, its streamlines cannot come to abrupt ends within the charges. The positive charge must therefore take the ether in from the surroundings and the negative charge must deliver it to the surroundings. This will necessarily diminish the external ether pressure on the positive side and increase it on the negative side.

If we adopt the modern view that the force of gravity is due to a pressure gradient in the ether, then such a difference of ether pressure on the two sides of a condenser should force the entire condenser in the direction of the side that carries the positive charge, exactly as has been observed experimentally. A charged condenser should therefore weigh more when its positive side faces down than when it faces up.

(Reprinted from BSRF's ROUND ROBIN, Vol. XII, No. 3, Sept-Oct 1957)

FINE FORCES AND THE PLANT
AN EXPERIMENT
by
Trevor James Constable

Virtually every phase of the Borderland Sciences leads the honest investigator to consider the "fine" forces, the more spiritual forces that work upon and through the substances of the physical-material realm. For those making their first visits to the Borderland, as well as for some veteran visitors, one of the illusions most difficult to remove is that fineness in a substance is always synonymous with weakness and impotence.

This illusion is one of many imposed by our "accepted" science, which is actually only a crude scientism. Scientism, by its very nature, categorically rejects all that cannot be explained by the "accepted" theories.

Some time ago it occurred to this writer that it might be possible to devise a series of simple outer experiments, utilizing plants, which would provide a manifested physical demonstration of the power of these fine forces to influence the physical. The inspiration for this experiment was born of the certain knowledge that outer proof of the efficacy of spiritual principles would provide a deep and highly beneficial conviction of spiritual power in the mind of any person performing the experiment. By this means, anyone could demonstrate for themselves how the enlightened human mind may bring these unseen forces into use.

A twofold condition immediately required satisfaction. The experiment had to be simple and free of any complexity whatever. In this way, anyone with the will to do it, could carry it out regardless of their financial circumstances or environment. Secondly, it would be necessary to avoid anything really occult for obvious reasons.

The writer hastens to give credit to Goethe and Steiner whose writings first brought these possibilities before him. Both will in due time be recognized as two of the greatest scientists ever to bless mankind with their gifts.

In any store you may buy plant food, such as Vigoro or other proprietary brands, which have been carefully compounded to aid in plant growth. Buy the smallest package you can find, for even this will be far more than you will need.

Select some seeds suitable for pot germination, and procure two pots the same size into which you load conventional soil from the same location. In Pot #1, place five seeds together with the plant food in its conventional form. Follow the directions given by the plant food manufacturer throughout in Pot #1.

In Pot #2, simply sink five seeds beneath the surface of the soil without adding any plant food at all.

Take a tablespoon of the plant food and shake it up thoroughly in a quart of water. Heavy, dense, stony substances in the plant food will sink to the bottom of the container, but ignore them. Now pour away or set aside nine tenths of the solution. If you store it, label it "1X plant food." To the remaining one tenth quart of solu-

tion, add faucet water to make up a full quart again. Pour away or set aside nine tenths of this and label it "2X plant food." To the remaining one tenth quart add faucet water to make up a quart. Pour away or set aside nine tenths of this, labelling it "3X plant food." Repeat the process with the remaining one tenth quart so that you have at the end a quart of "4X plant food." Take one tenth of this and make it up to a quart. This is the "5X plant food" that you are going to use to fertilize Pot #2. Note that if you make up all the potencies you have set aside you will have 10,000 quarts of 5X plant food from that original tablespoonful of plant food.

Keep your seeds in Pot #2 watered with the 5X potency plant food and water your seeds in Pot #1 in the regular manner with conventional water. See that the pots are placed close to each other with equal access to sunlight. Just watch the difference in growth, and be prepared to be astounded. The seeds in Pot #2 will be up first, will grow faster, and produce the most solid, juicy, luscious plants you can imagine.

The seed experiment is a scientific comparison. If you do not choose to perform it, you can carry out the same process with mature plants, or with anything that can be fertilized with a proprietary product. Be sure, however, that you use the right fertilizer for the plant you are experimenting with. If you want to resuscitate a dichondra lawn, use the conventional dichondra fertilizer, and "potentize" that. For roses, use rose fertilizer. Great care has attended the selection of the ingredients in each case, for they are right for the plant at which they are aimed.

The fundamental question is that of density. A delicate organism like a plant cannot possibly use fertilizer and plant foods that are dense and heavy, denser and heavier in some cases than foods which man, with his marvelous metabolism could barely handle.

In shaking up the plant food in successive attenuations as described, the spiritual quality of these substances appears to be transferred to the water. Each time the one tenth is expanded into a full quart of water, it is, in a chemical sense, attenuated, but at the same time it is brought closer to the FUNCTIONAL condition, from which the physical material world has been crystallized.

In the functional condition, the plant food, the minerals composing it, can be utilized immediately by the archetypal or etheric plant, invisible double of the physical. This etheric plant governs the health of the physical plant. What happens to the etheric plant is manifested in the visible, physical plant before us.

There is no space here to fully develop why the functional condition of this plant food makes it immediately available to the etheric plant, but we can say that such functional substances come readily under the influence of levity. Levity, the counter gravitational force that lifts the sap in the plant, and with it the mineral substances from the soil, cannot act on dense, gravity-bound plant food in the conventional fashion.

When the archetypal or etheric plant is nourished by levity-bound functional substances, the physical plant immediately manifests the same health, well-being and perfection. Borderlanders will find the convictions of spiritual power that arise from these experiments to be most useful, and there is literally no end to what might be done by applications of these methods. They are of the stuff that sets men free.

Tremendous Possibilities of Radio

An Interview With Nikola Tesla

By J. P. GLASS

[Nikola Tesla, leading authority, electrical wizard and inventor, discoverer of alternating current, power transmission and induction motor, system of arc lighting, system of electrical conversion and distribution by oscillatory discharges, generators of high frequency currents, transmission of energy through a single wire without return, the Tesla coil or transformer, Tesla turbine, etc., has been studying the possibilities of wireless transmission of power since 1884. Dr. Tesla sleeps but two hours out of the twenty-four and eats only two light meals a day. Tall and gaunt, almost totally withdrawn from distractions that interfere with his work, his being seems fairly to burn with his intense purpose.

Dr. Tesla is an extremely hard man to approach as he is wrapped up in his work. Mr. Glass was able to arrange with Dr. Tesla to dictate answers to written questions, which makes the following extremely important and interesting material more of a direct report than the usual article. Most men whose imaginations have been stimulated by the keen radio interest that has gripped the country have no doubt felt that they would like to ask a great expert some of the questions that are answered in this timely article.—EDITOR.]

HERE briefly, is an outline of the future of wireless transmission, as viewed by Nikola Tesla, the great authority. Dr. Tesla, who began his electrical investigations as far back as 1884, and has been steadily pushing them through the intervening thirty-eight years, does not expect great changes in the physical aspects of life as we know it in modern cities and closely settled communities. For such, the transformations wrought will be chiefly social in their nature, the beneficent results of increased communication and wider spread education. Mankind will be brought closer together, the dissemination of knowledge will be greatly multiplied, and a complete understanding is bound to result.

Business will be affected in the sense that its means of operation will be given increased facility and it will be afforded new avenues of endeavor. But life will move forward with little variation, with largely the same methods of living, occupation, transportation and amusement.

However, this will not be true of those portions of the earth now regarded as inaccessible. "Transportation of electrical energy in unlimited amounts to any point in the world" means that the desert will be made to bloom and the mountain range robbed of its bleakness.

Man, equipped with power and light and means of oral and visual communication, can penetrate to the most unfrequented places and speedily build for himself communities with all the advantages of the metropolitan centers. Railroads will not be necessary because airships and airplanes, availing themselves of the same energy which man will apply to the development of the earth, will afford him transit wherever he may wish to go.

To gain time and to insure accuracy, the interviewer submitted a number of questions to Tesla in writing. His replies were dictated. It is possible, therefore, to present what amounts to a stenographic report of the interview, as follows:

Question: Have you made any discoveries in connection with the wireless principle which have not been given to the public and, if so, would you care to state them?

Mr. TESLA: I am glad to say I have, although I am not prepared to discuss them at present in a general way.

One of these inventions will enable us to condense the wireless transmitting apparatus to such an extent that the entire plant for carrying the human voice around the globe will be contained in a smaller space than that

occupied by little cottage. There will be no high towers.

In this connection I have made a discovery as interesting as it is important, which, when it is announced, will cause great surprise among engineers. This cannot be disclosed, now.

A number of other inventions relate to the control of the energy by delicate means, isolation of impulses, and their reception and recording at distance.

Question: What will be the effect of these inventions upon the wireless art?

Mr. TESLA: I think that they will greatly facilitate wireless transmission in several ways. The transmitting apparatus will be very much cheaper and qualitatively superior by far to existing types. Especially in the

tion with their agents and customers everywhere.

Question: You have established the fact that electrical energy can be transmitted without wires—how soon will it be possible to carry on such transmission on an industrial scale?

Mr. TESLA: I have been confident, ever since I gave the outline of my wireless system in scientific lectures delivered in 1893, that power could be transmitted without wires, and that ultimately we would establish plants for such transmission on an industrial scale. But it was not until 1899 that I obtained absolute experimental evidence that this could be done in a manner far more perfect than I had dreamed of before. Ever since that time I have devoted a large portion of my energy to the design and construction of the devices to be used for the purpose.

I am now prepared to undertake the construction of a wireless power plant which will transmit energy to any point in the world, however distant, with a loss not exceeding five per cent.

Such a plant would have been erected long ago if the profession (engineering) had been prepared for it. But, as a matter of fact, a great many engineers are in doubt as regards the possibility of this achievement, and yet it is as with everything else, very easy when you know how.

Question: How will wireless transmission of energy affect the present machinery of industry?

Mr. TESLA: It must be remembered that commercial enterprises always will be governed by economic principles. To illustrate: If it costs less to propel an airship by fuel than it would if wireless energy were employed, then fuel will be used and wireless energy will be looked upon as a luxury.

The history of invention proves that new developments always take place along the lines of least resistance, and that invariably time is given for the adjustment of existing conditions.

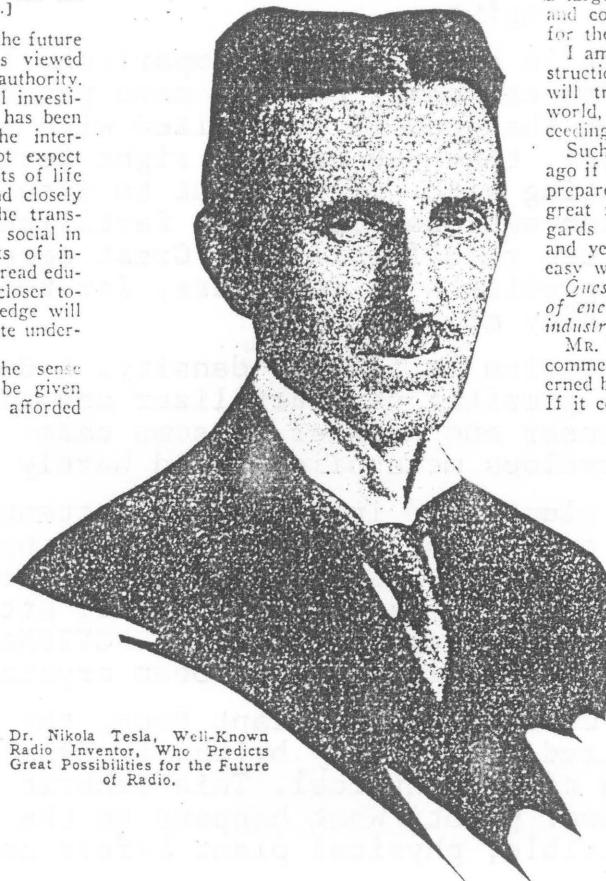
I have studied the subject deeply for many years and believe that the chief future of wireless power, for some time, at least, lies in the use of small quantities of energy in places which are inaccessible. I should think that an advance of this character can only be helpful, then, in the development of all branches of industry.

But, if my plans mature and turn out as I hope, aerial navigation will take enormous strides in advance, for it will be possible for the machines to be operated without carrying stored energy, which limits their cruising radius. It stands to reason that their carrying capacity and speed will be increased when wireless power becomes available. Of the two types of aircraft, the heavier-than-air and dirigible balloon, the latter will be more suitable for this new method of propulsion.

In certain other fields wireless transmission undoubtedly will prove revolutionary. For instance, when it is desired to light an isolated dwelling, more or less remote from centralized communities, this method will prove ideal, for a house can be equipped with a small and very compact apparatus at a ridiculously moderate price.

Suppose, too, that a man goes to the Adirondacks on a camping expedition. He supplies himself with the necessary receiving

(Continued on page 940)



Dr. Nikola Tesla, Well-Known Radio Inventor, Who Predicts Great Possibilities for the Future of Radio.

use of such transmitters for purposes of broadcasting will great advantages be secured. The receivers will be much more responsive, too, and sharply differentiative. This means, of course, that more instruments can be operated simultaneously without interference and at greater distances.

The compactness of the transmitter will greatly facilitate its installment, so much so, indeed, that I look confidently to the time when all leading newspapers and large institutions of business will possess equipment enabling them to communicate with any part of the world.

Newspapers, for instance, could maintain their own transmission plants, which could be used not merely for broadcasting news bulletins as an auxiliary service to their printed editions, but for gathering reports from their correspondents; and business concerns could have their own private systems by which they could have direct communica-

Tremendous Possibilities of Radio

(Continued from page 833)

apparatus, which he can carry in his kit with ease, and before he departs arranges with the power plant owners for service; then when he reaches his destination, no matter how wild and inaccessible it may be, he can be supplied with all the light and power which he may need.

I am looking with the greatest confidence to an application of the wireless principle for purposes of lighting on a vast scale, but this will not interfere with the lighting of cities and populated districts from central plants.

The new art will be of small effect, in itself, on the cost of production. There is an idea in the popular mind that wireless power will be had for nothing, but this is

far from being so. The primary energy has to be provided, either from a waterfall or by burning fuel.

To sum up, I have always visualized the wireless art as being applied to fields not supplied by present systems. These will endure for a long time, until conditions economically demand the substitution of a new system.

Question: When wireless transmission of energy becomes an industrial fact, will not the larger part of the present system of fuel transportation become obsolete? Will not practically all power then be produced close to, or in, the mine and oil fields and at water power stations?

MR. TESLA: The engineering world at present is developing the so-called super-power system, which I have advocated for twenty years. It will be the means of furnishing energy more economically and over greatly increased areas. Wireless transmission would not seriously interfere with it.

Of course, there are innumerable places where power transmitted without wires would be of relatively greater value and in commercial enterprises this consideration would govern the installation of receivers.

As to the present system of hauling fuel to great distances: Engineers are centering their efforts on reduction of this waste, that being precisely one of the objects of the super-power system. But, while plants operating with wires must be favorably placed, a wireless plant can be located without reference to natural advantages. This is important.

There is a strong tendency now to erect power plants close to the coal and oil fields and the sources of water supply. Industry will be greatly benefited when this idea is carried out on an extensive scale.

Question: Will not wireless transmission of energy result in time in the moving of practically all means of transportation with electrical energy from central power stations?

MR. TESLA: No, I do not expect that such will be the case, for the transportation systems now used present certain important practical advantages which cannot be disregarded.

Question: Will not automobiles, for instance, be operated merely by the operative "cutting in" on electrical energy supplied by wireless from power stations?

MR. TESLA: I fear we shall not live to see the wireless system in general use for this purpose. It is difficult to propel an automobile by the new method for reasons with which experts are familiar. Success can be much more easily achieved in the case of airships.

In time to come it is possible that some form of automobile may be perfected that will enable this propulsion of such vehicles to be effected by power drawn from the ambient medium.

Question: Will the transmission of large amounts of electrical energy by wireless constitute any sort of menace to life and property?

MR. TESLA: None whatever. We live on a globe which is charged to a pressure of two billion volts and we do not feel it at all, although it is possible that we may be affected by this immense pressure in some way or other. Lightning discharges usually occur under a tension of 1,500,000,000 volts and yet the powerful oscillations set up are insensible. Wireless transmission will be effected by electric currents of much smaller force than this. Far from being menace, the new art will enhance in innumerable ways the safety of life and property.

Question: Getting back to the wireless transmission of sound, will it be possible to develop voice detectors that, at a distance, say, of four or five hundred feet, will amplify sounds so they can be heard plainly?

MR. TESLA: Of course it will. The human ear, though an organ much inferior to

the eye, is wonderful just the same. It may be of interest for me to state that at a certain period in my life, when I suffered from hyper-excitation of the nerves, I could hear distinctly a fly walking on a table at a distance of several feet, and when he alighted I heard a strong thud.

In my experiments at my wireless plant at Colorado Springs in 1899 I could easily hear with the unaided ear thunder claps at a distance of 550 miles, although my assistants could not hear beyond 150 miles.

I believe it possible to perceive the sound of a strong explosion at a distance of 12,000 miles. If this theory is correct, it explains the extraordinary behavior of many persons afflicted with nervous diseases.

There are amplifiers of various kinds by which a sound can be multiplied a billionfold. There is virtually no limit in this direction.

Question: In one of your articles you declared you believed it possible to precipitate rainfall by means of wireless energy. Is there a probability of this being an early materialization?

MR. TESLA: That is an idea on which I have labored since 1892, when I accidentally observed that a stroke of lightning caused a copious downpour. Twenty years ago I had advanced so far in the design of the means for accomplishing this purpose that I made every effort to carry out the idea on a large scale.

But I found my plans were received with skepticism. We undoubtedly will accomplish this wonder some day and then will come the lords and masters of life on this planet. We will be able, then, to obtain any amount of power almost without effort and produce lakes and rivers where all was barren before. All the work will be done by the sun; man will merely press the button.

Hitherto the interview had concerned itself solely with the utilitarian aspects of the wireless principle. At this point the following question was propounded:

The development of water power and of the wireless transmission of electrical energy produced by water power would indicate that in the far distant day when coal and oil are exhausted those countries having large quantities of water power will become exporters of electrical energy to less fortunately situated countries. Does not this mean new political adjustments and division? Or will wireless telephony, hastening the day of world peace and international progress, long before that time prepare mankind, through increased intercourse and education, for the cooperative use of natural resources?

The scientist's reply was a proper finale.

I have always considered the wireless art the greatest advance of all ages. That is why it has been the chief object of attainment in my life.

We will never overcome international friction and wars by pacts and agreements, however solemn, nor will we by this means abolish the barriers that separate the nations from one another and are an impediment to general progress. There is only one way of achieving this great end and that is by annihilating distance. The wireless art will accomplish this in every aspect.

Of particular importance as means for insuring peaceful relations between nations and communities will be wireless telephony and picture transmission. The latter is crude and imperfect, but carries the convincing power of a record. The time is not distant when we will have wireless television, which is immensely more difficult to accomplish and correspondingly far reaching in its effects on human life. No such apparatus is in existence, now, but the preliminary steps necessary to the successful solution of this great problem already have been made.

The combined use of the wireless telephone and the apparatus for television will put human beings in intimate aural and visual contact though thousands of miles may separate them. So to speak, a man will be able

to lean out of his window in New York and talk to his "neighbor," similarly placed in Paris.

The consequences of such an achievement are inestimable when considered in relation to our social and political progress.

[Copyright, 1922, Thompson Feature Service, Inc.]

THE AL-CHOOSS GENERATOR
by
Albert Zock

The soul of all kinds of life, culture or technology is energy. Energy is a form of light, warmth, may it be chemical, fossil or nuclear - in one word potential energy.

It has been estimated that in one year man uses up energy deposits which took nature over 2,800,000 years to accumulate and the exploiting goes on. No wonder our planet is in such a mess and it looks as if there is no escape out of this "Circle of Fire" - yet, it takes only a change in direction to break out of this vicious circle - the answer is "Soft Technology."

Soft Technology is that which nature has used since the beginning of time (if there was a beginning). Daily it lifts millions of tons of water high into the air with a minimum of effort and without destroying its biological quality, as conventional turbines do.

Our greatest energy reserve lies over 149 million kilometers (92.5 million miles) away. From the daily supply of solar energy ($17.3 \times 10^{16} \text{W}$) nature stores 23% ($4 \times 10^{16} \text{W}$) in water, steam, air and ice. Surface water is the best storage of solar energy and the Al-Chooss method puts it to good and clean use, which is a step in the evolution of technology.

Viktor Schauberger points out that the friction of the water against the metal of turbines, which chopping it, so to speak, loosens its atomic structure - it becomes lifeless. However, one can not only avoid this bad side effect but even enhance its quality by changing from the centrifugal principle to the centripetal one - from explosion to implosion.

Viktor Schauberger built such a generator using a kind of curved pipes, which steer the water away from the walls inward. Such construction increases the biological property of the water and it also cools it down, like a water spring does. Such curves not only improved the quality of the water, they also create an energy which drives the generator without the need of fuel once it has been started, and to top it all - it even has power to spare. In other words, you get more out of it than you put in, the energy is free....

The Al-Chooss energy transformer in Syria, is such an integrating system as well, just its construction is different. Not only the solar energy stored in surface water but also the pressure difference between water and air, combined with the adhesion and cohesion forces are with a minimum of effort converted into a potentially high energy. The exchange of energy is equal: Therm.E. = Kin.E. = Pot.E. = Mech.E. = Electr.E....

DESCRIPTION

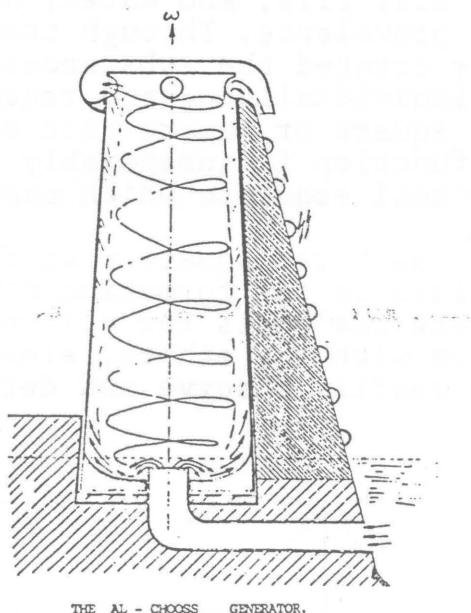
A tall upright standing hollow metal cylinder, with a heavy bottomplate as flywheel, is friction free mounted to its base in

such a way, that it can be made to rotate vertically. This hollow body has a slight conical shape and its lower segments, the flywheel, bottom, base and water intake, lay beneath the water level. This construction guarantees a steady supply of water to its interior when in motion.

Like Schauerberger's generator, this one also has to be started with the help of an electric motor or the like. Once in motion, because of the centrifugal force, the water climbs the wall up in a spiral which creates a vacuum on the bottom. The pressure difference between water and air will result in a steady flow into the cylinder. Because of the narrowing upper part the speed of the spiraling water increases making it not only self supporting, but even augmented as well. This act transforms heat directly into kinetic energy contrary to other methods. Other beneficial side effects of the Schauerberger and Al-Chooss generators are enriched oxydation and cooling of the water while cleaning the air within the swirl. As soon as the water reaches the top, it leaves through four outlets. Its high content of potential energy makes it excellent for irrigation, or it can run over a turbine cascade into a basin and be used over and over again. Sea water can be directed back into the ocean. Dams and resevoirs are not needed. The weight proportion between watercolumn and rotating body exceeds 9:10.

Up to now small prototype bearings have been used to reduce friction between bottom flywheel and base, but to reduce friction to almost nothing, the use of magnetic fields has been suggested.

It works on the same principle as hurricanes do. In warm regions the surface water of the ocean is saturated with solar energy. The whirling currents of the sea initiate a swirl in the uprising evaporation and in time a hurricane is in full swing. A hurricane does not only support itself but its overload of energy causes destruction and even moving of heavy objects. Science does not research the implosion principle deeper because of its cooling side effect, creating heat is all they are interested in.



THE AL - CHOOS GENERATOR.

GEOMETRY: IN SUPPORT OF THE ETHERIC

by Michael Theroux

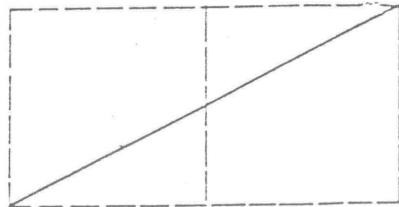
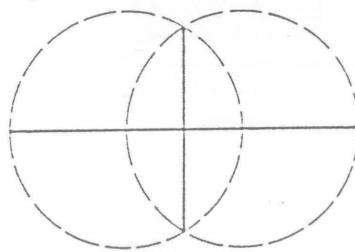
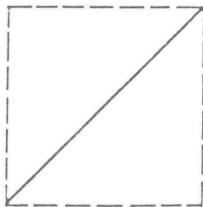
The ethers, formative forces, and elements, as presented in the philosophy of Rudolf Steiner, are the basic creative components in the structure of the universe. All forms of nature can be defined by these inseparable concepts. When combined with the practice of geometry, we find a reenforcement of these ideas and an interconnectedness in which geometry, ether, and form, become one.

Light, warmth, tone, and life, the four ethers, are the universal principles; the superior and unifying archetypes giving birth to the formative forces. The corresponding geometric function which represents the ethers is the square root of two. This is the transformative and generative function where one becomes two and creates the endless potential of multiplicity, which can be observed in the division of a square cut by its diagonal.

Although we may not have the ability to perceive the ethers directly, we can, by observing the differences between the physical and the etheric, begin to understand the nature of the formative forces. All formations of plants, trees, crystals, water, etc., can be viewed as objects of action embodied in formative force. The square root of three displays its formative character in the geometric configuration of the Vesica Piscis, and can be constructed by drawing two equal circles in which the center of each overlies the circumference of the other. These overlapping circles are an excellent representation of a cell in the midst of division exhibiting the active separation of the ethers and formative forces. The hexagon, when viewed in relationship to the square root of three and the Vesica Piscis, brings into existence the ordered formation of crystals, especially those of the carbon bonding type which allow for the creation of all organic substances.

The elements, earth, air, fire, and water, are the basis for the physical and give it prevalence. Through the ethers, formative forces, and elements, are created the substances and forms of organic life. These are individualizing and regenerative, symbolized by the double square or square root of five rectangle. The square root of five function is inseparably related to the Golden Ratio of the Fibonacci sequence which can be observed throughout nature.

The relationships of the three square root functions presented here are the only essentials in the formation of the five regular solids (Platonic) which are the basis for all volumetric forms. Given this, in conjunction with the ethers, elements, and formative forces, we can readily observe and define all forms displayed in nature.



FUNCTIONAL THINKING: An Interview With Eric Dollard
by Tom Brown

Eric P. Dollard, Wireless Engineer, is a scientist who bases his work on observation of phenomenon and practical experimentation. He is the Vice-President of BSRF and the author of five published papers on electrical phenomena: CONDENSED INTRO TO TESLA TRANSFORMERS, DIELECTRIC AND MAGNETIC DISCHARGES IN ELECTRICAL WINDINGS, SYMBOLIC REPRESENTATION OF ALTERNATING WAVES, SYMBOLIC REPRESENTATION OF THE GENERALIZED ELECTRIC WAVE (IN TIME), and THE THEORY OF WIRELESS POWER. In the course of Eric's research he has investigated the works of Nikola Tesla, Charles Proteus Steinmetz, Philo Taylor Farnsworth II, Johann Sebastian Bach, Wilhelm Reich and other true Scientists of our era. I have personally witnessed the propagation of electricity without wires, the phenomenon of drawing several inch sparks off insulators and mysterious living forms in plasma gas bulbs connected to Eric's Tesla apparatus. Eric speaks a knowledge gained by hands on experience. This interview will certainly change your point of view about the Borderlands of Science and will certainly shatter any preconceived notions you once had about Tesla, Free Energy, ELF, The American Dream, etc.....

Tom: What first interested you in the works of Nikola Tesla and electrical engineering in general.

Eric: I've always been interested in the subject. Years ago someone gave me a copy of Co-Evolution Quarterly that had an article on Tesla, Philo Farnsworth and Edwin Armstrong. That got me thinking about what was going on as I had basically reinvented the Tesla coil as a teenager using equipment given to me by RCA. Things started to connect at that point. Then I read PRODIGAL GENIUS (by John O'Neill) and it was like I was hit with a bolt of lightning. That book shocked me into action.

T: What do you think that Tesla was trying to attempt in his work?

E: Its hard to sum that all up in one phrase.

T: Would the culmination be the transmission of electrical energy without wires?

E: That was part of his projects, using what could be called true single phase electricity, or mono-polar electricity. That's the key to his transmission of electrical and mechanical energy - to convert it to a single phase form.

T: Would you say that monopolar electricity is electromagnetic?

E: No, its anti-electromagnetic.

T: You mentioned Philo Farnsworth, what type of work was he doing?

E: Farnsworth built the multipactor tube, a secondary emission, negative resistance tube. It tends to take off when connected to apparatus such as a Tesla coil and exhibit electrical oscillations.

T: So, to use a catch-word of the day, it was a free energy device?

E: Yes, probably the only real free energy device that anyone ever demonstrated which can be reproduced.

T: Was there any relationship between the work of Tesla and that of Farnsworth?

E: They are really in totally opposite directions. Farnsworth was the high master of electronics...he was electronics. No one knew more about the electron than Farnsworth. Tesla was dealing with ether type forces that don't involve material or atomic particles, they involve something a little finer than that.

T: You have worked extensively with Tesla coils and we have published your books on the subject. What do you feel is the actual use of these apparatus?

E: As a transmitter-receiver device, for transmitting energy without transmission towers or large arrays of dipoles, or equivalent.

T: What is the medium for the transmission of energy if wires are not used?

E: Whatever the general media is around us, call it the ether, or air or you can transmit it through the ground. Basically it just flows. The Tesla system is designed to transmit through the ground. There's a lot of talk about propagating through the earth-ionosphere wave guide, which Tesla, in no way, shape or form envisioned. Most of his apparatus are for transmission through a common conducting medium and the earth is the best conducting medium available. The devices are one conductor electrical generators - just connect one terminal to the common conducting medium and all the other one terminal devices will receive the energy. There's no pairs of wires or wave guides to bound the energy. These are what are called unbounded waves. The Tesla Magnifying Transmitter is a converter which converts electromagnetic energy into what is called magneto-dielectric energy.

T: What exactly is the dielectric side of electricity?

E: The side of electricity that represents the faster than light phenomenon.

T: How does the dielectric relate to Reich's orgone energy?

E: Reich found that the orgone and the dielectric field are basically one and the same. If a dielectric field has the proper pulsations then you could almost call it the orgone energy. An example of this is the orgone accumulator, which is alternating layers of dielectric and reflecting material, like a capacitor. The reflecting is usually called the conducting in electrical engineering work but this is based on misconceptions from the 18th and 19th century with regards to how electricity flows. It's well known that electricity doesn't flow through wires, but that's the conception that most people carry around in their heads. Of course people used to think the earth was flat, too. Reich's dogma assumed that the insulating or dielectric material had to be organic, but of course he was using glass wool and its stretching the term organic by applying it to glass wool. You could say the glass wool is organic because the silicon dioxide has two atoms of oxygen, but that's not really true.

T: Have you found any evidence in your research relating the dielectric field to orgone energy?

E: Yes, the cosmic superimposition effect. If you take a low pressure gas (in a bulb) and place it in two superimposed dielectric fields then you get spiral formations such as Reich wrote about in his book COSMIC SUPERIMPOSITION. These formations appear as spheres, galaxies and other cosmic forms.

T: So the high voltage terminal of a properly built Tesla transmitter puts out a dielectric field?

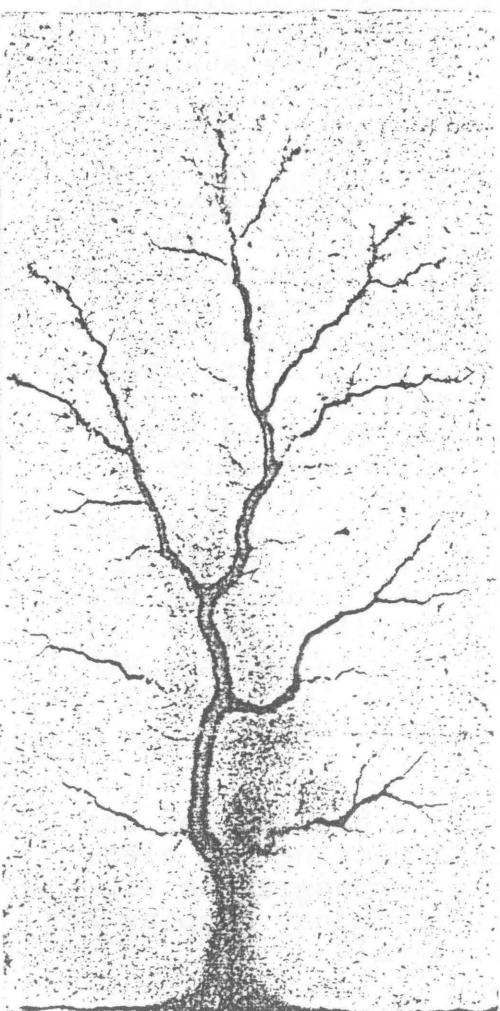
E: Right - a dielectric current - a current of many amperes flowing through free space without any electrons. This is a true electrical current.

T: Is this as you've demonstrated to me where you can draw a several inch spark off the insulator, which of course isn't supposed to happen?

E: Right, an insulator isn't supposed to conduct electricity so how can you draw a spark off of it? (laughter)

T: One thing I've noticed in these discharges is that they look like plants, like something organic, unlike regular discharges which look erratic and sparky. What explanation do you have for this?

E: Their shape is basically the Golden Ratio spiral. The log periodic spiral projecting out into space with all angles determined by the Golden Ratio. Now this is also the same shape that living objects form and you find that all discharges, in general, of potential energy will try to form this shape. You can see it in water patterns in sand and patterns in clouds in the sky. The patterns appear over and over and over again, just like the organic patterns burned into wood by the discharge of my Tesla coil. This is connected with the orgone right there. This type of monopolar electricity is in such a form that it will grow into organic patterns, a pre-life pattern from the ether itself. Any type of energy like this such as a stream flowing down the side of a mountain, a crack in a piece of window glass, or fresh water percolating up through the sand on a beach all make these organic patterns based on the Golden Ratio. Any time you have energy discharging you find this type of pattern. Of course this ties in directly with what Viktor Schauberger was saying. His work is actual proof of it. You can say there is a shape in space which is the log periodic spiral. It doesn't exist in a tangible form because it is something that grows and decays. Its size fits the wavelength and frequency of the amount of energy to be discharged. Its not like you can map space to see this particular spiral, but if you release energy into space then the spiral will appear.



Golden Ratio Discharge

T: I've heard that Tesla made references in his work to using a TMT for bringing in storms. Do you feel that there is any relationship between what Tesla was doing and what Reich was doing with his cloudbuster?

E: I haven't read too much information which indicates that Tesla was trying

to control the weather. He makes scant references here and there about how weather-like phenomena appear, such as fog appearing in his laboratory, but that wasn't Tesla's particular aim, where Reich's particular aim was in dealing directly with the actual forces. We have to remember that Tesla was a mechanistic, Victorian personality and he was trying to build machines that related to horsepower hours and BTUs and things everybody was concerned with at the time, and turn the globe into a giant amusement park.

T: Such as his plan to light up the atmosphere at night?

E: Right, you would never be able to see the stars, you'd just have the sound of electrical apparatus roaring everywhere. People weren't ready for Nikola Tesla.

T: I get the feeling that you don't approve of Tesla's final vision for the earth.

E: Not the way he represented the ideas, but what's interesting about the technology he made available, when used in perspective, is actually quite healthy for the planet. Then you're dealing with energies that take on organic shapes and you're one step closer to the type of energy that Reich theorized and made some actual physical discoveries of.

T: There's some popular literature on the market today claiming that the strange weather patterns the earth has been experiencing over the last ten years or so are being caused by Soviet use of Tesla apparatus. Have you done any research which would confirm or deny such claims?

E: The claims are basically groundless. I did a four year research project at Sonoma State University (California) involving the relationship between the planets in general, the sun and the weather on this planet, and the effects of solar flares on the weather, the effects of planetary alignments on solar flares, the effects of these things on radio propagation, earthquake activity, and tried to tie the geometries of all these energy patterns together. I found the weather patterns were very tightly coupled to the solar flare cycles, the Russians really don't have anything to do with this. Any effect the Russian Woodpecker signal would seem to have on it would be purely incidental because during these periods of intense solar flares signals like the woodpecker would be sounding louder and propagating better. Maybe its an advantageous point for the Russians to utilize the signal. This seems to be the case. But to think that the woodpecker is making solar flares on the sun and controlling the times at which the planets align is absolutely absurd! As far as all these geometric patterns being seen in the sky, the Indians and other ancients knew about these patterns and they look like the patterns generated by mundane forces such as water and dielectricity.

T: What do you feel the woodpecker is and what is its use?

E: Its a non-Hertzian, shortwave signal which could be used for one of two things. Either its used for sounding and exploring the electrical system of the planet or more likely its a cryptographic signal utilizing the spread spectrum technology of frequency hopping and direct sequencing modulation. It is not an ELF signal!

T: Then the cloud patterns are the indicators of cosmic flux?

E: Exactly. A well trained observer can look at the sky and it serves as a metering of the intensity of the cosmic energy which exists at a particular point in space and time. I've utilized this during periods

of heavy solar flares to get an idea of the flare's more subtle characteristics by watching the geometries they produce in space, particularly at the intervals when the solar flares have stopped and all the earth is receiving the discharge from the flares. These discharges produce very profound cloud patterns and of course heavy rain. So the heavy rain cycles were produced by the enormous flares of solar cycle 21, which were cranked out between 1978 and 1982. The flares were most intense around 1978 and as the flares died down we got an upward cycle of precipitation. Now we're at the point where the energy has mostly fizzled out and the weather is fairly indeterminate from the solar-terrestrial physics standpoint.

T: In January we've received reports that the coldest temperatures on record have hit England and on the same day we got a report of an abnormally high 46° temperature in Antarctica. Dog sleds have to be run at night because of the heat. My research shows that some of the major contributing factors to the erratic weather patterns have been the mass deforestation of rainforests to produce toilet paper and newsprint, and also nuclear testing which is also directly related to earthquake and volcanic activity.

E: You have to keep in mind that mass deforestation and large amounts of thermodynamic and nuclear energy are going to have a much stronger effect than the subtle energies coming from the planets and the sun. Deforestation and nuclear energy are definitely going to be dominant influences. Being that the size of the earth and the scope of the phenomena are so large, and the frequency of events is slow, it's going to take a while to see exactly what effect all these destructive actions are going to have. It seems as though everyone intuitively knows that life is going to thoroughly disrupt and things are going to get pretty bad. You just can't keep whacking on the earth and expect things not to start changing.

T: There has been a lot of varying literature on the polar shift appearing over the last 30-40 years. One aspect which I've pursued is the magnetic reversal of the poles. In some of the Native American prophecies they say that the earth will get very hot and then very cold, and then things will balance out again. Does this relate to any electrical phenomena as you understand it?

E: At the point at which the earth's magnetic field equals zero, which happens between maximum positive and maximum negative the planet will cease to be a magnetic energy type of situation and become a dielectric energy type of situation. In most spatial geometry systems which contain electric energy the point of zero magnetic energy is the point of maximum dielectric energy. Interestingly enough, for navigational purposes you wouldn't be able to use iron, or magnetic, permeability type materials anymore. You'd have to start using dielectric permeability materials like ceramic for compasses.

T: Would this be a short lived situation?

E: It would be in balanced proportion to the magnetic and it is probably going on right now, but it is not generally acknowledged due to the lack of measuring instruments. Physicists have focused their attention strictly on magnetism. In a newspaper article I was looking through the other day I saw that the physicists now have an even bigger magnet so they can smash atoms ever harder and find more little tiny fragments to catalog and confuse themselves. What could be quirkier than a quark? (laughter)

T: If this is happening right now and there is a dielectric propagation during the changeover of the magnetic poles could this in some way account for the shifting of orgone streams and be a part of the phenomena of the strange weather we've been having?

E: Yes, it could definitely tie in. You're talking about a whole different spatial geometry emerging as far as how electrical energy is distributed so you're going to have all kinds of effects. The weather is filling in patterns that already exist in space determined by all these fields of force, most of which we don't even know about yet. Tesla was able to open up a door into all these things, but he really didn't explain how to do it. There are other flux fields that can be measured with his apparatus that get more into this dielectric type of situation. Tesla was successful in measuring the amount of charge on the planet, but no one really knows how he did that. That would be an experiment to try. The velocity of light continually changes which changes the capacity of all capacitors and changes the effect of orgone. A fundamental property of an orgone accumulator is that the dielectric material, which Reich called the organic material, serves the purpose of slowing down the velocity of light trying to draw in the orgone energy. Then the metallic layers reflect the electromagnetic part but the dielectric part penetrates through it without even seeing what's going on. The accumulator serves as a magneto-dielectric separator. I don't know if Reich would go along with this. He had his own way of looking at it.

T: In science one has to look at different ways of viewing things if progress is to take place.

E: The important thing about Wilhelm Reich is not so much his apparatus or his theories but his concept of functional thinking. If you know the basic patterns of nature then you have no problem seeing all these phenomena. You have no problem looking up in the sky, knowing what all the cloud patterns mean. You have no problem developing apparatus to work with these energies because you just basically know. The great minds such as Johann Sebastian Bach and Nikola Tesla worked with these types of situations. You could say that all their work is based on archetypal forms. That's what makes their inventions or music so powerful. They were discoverers and not just inventors or composers or whatever kinds of names are put on these types of people. They go beyond that, they have tapped in and can see these fundamental shapes and geometries that everyone else is numb to. Viktor Schauberger is most important for bringing these things down to a practical level. If you make the right shapes then organic energy or water flow becomes easily manageable, that is, engineerable. He only intuitively knew a lot of this so it still wasn't worked in engineering science. If you bring in Tesla, Reich and, interestingly enough, Johann Sebastian Bach (who plays an important part in this) then you begin to find the nature of this basic form. If we take Tesla's three phase electricity, or rotating magnetic field, we find that it is based on the archetypal form known as the solar cross or by various other names.

T: Mandalas, medicine wheels?

E: Right, these are four quadrant types of forms, a balanced cross as opposed to an unbalanced cross.

T: This is where you get the Four Quadrant Theory of Electricity?

E: Right, electricity has to be viewed from a four quadrant type of situation. The right angle plays an extremely fundamental role in electricity. It is generally a right angle phenomenon.

T: This goes back to what we were discussing earlier about the positions of the planets in relation to solar flares and the weather. How do the quadrature relationships tie in with that?

E: When you take the planets like Mercury and Jupiter, which are the real activity generators, in right angle relationships involving the earth and the sun then you find that radio reception and electrical conditions on the earth tend to be disrupted. RCA used this for a number of years, its called radio astrology. Astronomers refuse to even talk about it, but you have a big company like Radio Corporation of America basing all their circuit predictions on it. They were big time, too. They had the big time circuits. They had the patents on radio and they're using astrology. Many old time RCA employees would talk about how the planets affect people's behavior, its just common knowledge to them because they have meters right there where they see these cosmic disturbances, and of course when they go out on the street or drive home they find that people are also modified by these various waves that were affecting shortwave transmission.

T: Since we're talking about behavioral modification, there is a lot of talk currently claiming that the Soviets are modifying behavior using extremely low frequencies (ELF). This is being attributed to Tesla apparatus. What exactly did Tesla do with ELF?

E: Tesla never did any work in ELF. His work was with the high frequencies, the opposing end of the spectrum. Tesla was the first to break away from the low frequency phenomena and that is what makes his work so important.

T: What about literature claiming that the Russians are using Tesla's ELF transmitters?

E: As far as I can tell, its basically a paranoid fantasy.

T: No direct relationship to any scientific work you've done or any mention by Tesla?

E: No, I've never seen evidence of such things, but I don't want to discredit people's work in that area.

T: Right, I feel that Dr. Robert Beck has done some tremendous and groundbreaking research into how ELF fields affect people's behavior. My question was to find out if any of this research is related to Tesla's work in any way.

E: There's no connection at all to Nikola Tesla. Its my personal opinion that the communists are not attempting anything of the sort.

T: So Tesla's name is being used as a technique to enhance various people's theories?

E: Basically. What's interesting is that these behavioral modification techniques are found on television commercials here in this country. American TV commercials that involve a lot of money use certain images, frequencies, wavelengths and such. This is along the lines of what has been proposed that the Russians are doing, but it all comes through the TV screen. It is not being transmitted through the ground or the ether or the earth-ionosphere wave guide.

T: So you're saying that high tech TV commercials are a form of psychotronic programming?

E: Yes, they're totally psychotronic. People in a sensitized state will react to that stuff pretty heavily, whereas the average person sees it as just something else on the TV.

T: Do you see these psychotronic images, not just on TV, but actually in the products being sold to consumers?

E: Its everywhere. Architecture represents the thought patterns of each era, so now we have an architecture which is sort of the logical conclusion of modernism, or what I refer to at this point as techno-fascism. The covers of Omni Magazine serve as a perfect example of techno-fascistic art. There is sterility and everything is in rectangular x, y, z, coordinates. The images are usually faceless and abstract. Of course architecture and art have a direct influence on people. It gets right down to the inside without having to go through any thinking process or educational process. If we take for example any piece of great music which has been around for a while, for a few hundred years, and people still want to listen to it for some reason. It doesn't matter if they're English or French or Russian, everybody likes it. The same thing with mathematics - it doesn't matter if you're German or Yugoslavian, any equation is still the same, the numbers and letters are still the same. There's no instructions needed, you just go right to work. So the art and architecture now is kind of an engineered thing designed to maximize the efficiency of consumption in the things that are desired in this particular type of techno-fascistic society.

T: How does this relate to automobile styling?

E: Well of course that's architecture again. There's generally three or four architectural patterns produced by all automobile manufacturers and interestingly enough, once you start looking for these things, you notice each automobile manufacturer actually uses the same letters and numbers for the same form of car that all the other companies do. It seems almost as if there is some sort of program, but it seems that now, rather than being a characteristic style of the era, there is a plan behind all of it. Of course its easy to cook up all these conspiracy theories about this, it could be accidental. It is interesting to study to see what representations exist in the modern era.

T: Its not accidental that the psychotronic programming has filtered into television programming, is it?

E: No. There's strong evidence indicating that its not accidental. The best case of that which I've seen is that of a picket fence I saw in the surf on a TV commercial to give a flash of vertical lines, which is a fundamental geometry used in all high tech TV commercials. Its either an x, y, coordinate grid, or horizontal lines, which are very popular, but very often vertical lines. Its hard to distinguish exactly what determines which one is used. Now I saw a commercial where people were playing on the beach and out in the surf was a small picket fence. Now how many times does a person see a small section of picket fence in the surf? It won't stay there too long anyway. So apparently it was necessary to use it to place the vertical lines. Whether this is an architectural style or whether it has an archetypal meaning still has to be determined.

T: That would be a whole area of research in itself, the deciphering of TV commercials to see what is being put into people's heads.

E: Its the same thing with the food. You go to the store and grab two loaves of bread. You look at one loaf and its ingredients read like a chemical rubber company's handbook on organic chemistry. It tastes like garbage and it doesn't do anything good for you. Its just worthless stuff. If you get a loaf of bread that has none of that stuff in it then it tastes good and makes you feel good. These chemicals don't really prolong the life of the bread, they don't make the food taste any better, yet they're in there. Why are they in there? They don't do anything...why are they in there?

T: It can't be an accident.

E: No, they certainly didn't slip in. They're all precisely measured and metered.

T: There's also a lot of stuff that's not required to be on the label. Take for example the new soft cookies in the stores. They contain plastic, but since plastic is not a food it doesn't appear on the list of ingredients.

E: That reminds me that in the 1930s PCBs were going to be used to extend the life of chewing gum. Shortly afterwards came the phrase - "Better Living Through Chemistry." From an ecological standpoint the chemical destruction of the planet has to be feared more than the nuclear or anything else. We have all these PCBs and everything just floating on the surface of the oceans. What's going to happen when it all soaks in?

T: Well we have the phenomenon of whales beaching themselves, and of course the scientists can't figure it out because they see everything as being disconnected.

E: That one's not too hard to figure out. Take a large naval aircraft carrier. This thing is going to have some heavy duty sonar on it with a peak output power of about 750,000 watts. This is 750,000 watts of sound, which is precisely in the wavelength that the whales communicate on. They can hear their own sounds halfway across the ocean and now the ocean is filled with these incredible shrieking noises that sound like spark gaps, ringing sounds and rapid explosions. It probably sounds like being in a battle zone. Its no wonder why they would want to hop out of the water. Their environment has been turned into a raucous.

T: I've heard that the sound that whales make is a direct transmission of a three dimensional picture. Before the advent of propeller driven boats and sonar and whatever the whales could communicate around the world in 3-D.

E: Sure, we've screwed ourselves. Nikola Tesla worked in a clean electrical environment to make his various measurements. Now the space is just alive with 60 cycles and its harmonics. You can walk out into the deep desert, and after meditating and calming down for a while, you can feel the air itself hum like a giant induction motor. This pulsating 60 cycles is just roaring in the air. You have to keep in mind that the entire electrical system of the country is operating in phase conjunction. Everything has to move together. Every motor, every transformer, every piece of machinery that produces electromagnetic vibrations is all locked in phase. Everything is moving in unison and whacking on the planet simultaneously and the planet actually hums at 60 cycles.

T: What do you feel are the prospects for a beneficial technology and who do you think are the sources for actually producing it?

E: It seems to me that the best place to start is with Viktor Schauberger and Wilhelm Reich. There's not really too many people doing anything real these days. There's a lot of people making claims.

T: The only other person I'm in touch with besides yourself who is actually producing something that works is Trevor James Constable. He's really figured something out about how these subtle etheric flows operate on the planet and he can demonstrate it over and over again.

E: Yeah, there aren't too many around like Trevor. The same thing is with the "free energy" thing. Now that I've completely gone through all the various works I've really run across only one person who is really doing anything, and I know he doesn't want his name mentioned in public. This person is not known by anybody. All the people out there making all these claims and hoop-de-doo are frauds. Every single one of them is a fraud! And that leaves out none.

T: So basically the free energy thing is like the ELF stuff, its just a technique for getting people promoted in the public eye?

E: Right, also everyone is trying to accomplish it with bigger and bigger magnets, the favorite toys of the physicists. Free energy will never come out of magnetism unless the magnetism is tricked with hysteresis, and of course very little is understood about that. Free energy will come from the dielectric field where energy grows rather than decays, perhaps orgone energy will be the way.

T: I've been checking into the concepts of the four ethers as presented by Rudolph Steiner and the Anthroposophical schools, and Trevor Constable has shown that the Chemical or Tone ether is related to the water system of the planet and is functionally equivalent to orgone. I've found through looking into your work that this ether is also related to the dielectric field. Electromagnetism doesn't fit in and was considered a corrupted ether along with the nuclear force. These weren't natural forces.

E: In alternating current engineering the magnetic wave is the one that is consumptive and retarded, whereas the dielectric wave is productive and advanced. You could say that electromagnetism is the fundamental geometry of consumptive retardation.

T: That makes a good analogy of our present society.

E: Exactly, because everything always fits together. All of our machines and apparatus and theories are extensions of our own thought patterns. Its all basically an architectural type of situation.

T: It seems as though the true promise for beneficial technology lies in the etheric, organic side, the side of life. It seems as though when one presents this information on living energy to scientists, rather than looking at it objectively, they react in a rage. Reich called this the emotional plague and his work has suffered from it. What do you think is with these scientists who refuse to face scientific verification of energies such as orgone.

E: The problem is that they are not scientists, they're not following the precepts of science. They're mystics worshipping a nuclear type of destructive energy. My contention about nuclear power plants is

that they're not there to generate energy, they serve as temples to worship this energy of decay and destruction and disease. The high laws are the laws of thermodynamics where everything must diffuse, decay and dissipate. Its quite obvious that they're pretty much worthless for generating electricity because, for one reason, they cost too much. They have to pump billions and billions of dollars into them and they hardly produce enough electricity to justify their existence, let alone break even. So they serve no practical purpose even though they were purported in the late 1950s to be so-called free energy devices. You look at the way things were in the 50s and you find its basically a death worship. That's one thing that surprises me now is that people want to get back to the 50s and relive those images.

T: So you're saying that the American Dream has turned out to be a nightmare?

E: The American Dream is to destroy the earth. We've succeeded in training everybody else how to do it too, so in case we fail they can take over where we left off.

T: I know what you mean. New Zealand's native forests are being stripped to make disposable chopsticks for the Japanese. Eric, in closing do you have any final message?

E: Tell everyone to quit their jobs and smash their televisions.



Clips, Quotes & Comments



NEW SURROUNDINGS

Since 1945 Borderland Sciences has been located in San Diego County, California. First it was in San Diego proper under Meade Layne's directorship and then with Riley Crabb at the helm it moved a few miles north to Vista, CA. Southern California was then, and is now a hotbed of Borderland activity and the location fit the work that was being done. Southern California is also a hotbed of activity in general and the people stream in daily looking for a better climate and a better place to live. There are very few places where one can be with nature. BSRF headquarters was also filled to the brim with new material coming in daily and expansion is expensive in SoCal. To make matters simple we drove up the coast and found a nice place in the forests of Northern California.

This area fits the work that is being done at BSRF. In the beginning Borderland publications were mainly based on mediumship. Questions were asked and the ideas bounced around the Round Robin. The ethers were probed. The afterlife and spiritual attainment were questioned to give the researchers a better idea of who they were, why they were here and where they were going. This quest for truth is still going on at BSRF but we feel that it no longer necessary to use mediumship as a source of information. Practical action and observation of nature will give the answers of who we are and where we can go if we pay attention. Mediumship has become a religion and there is no longer any questioning of the material. It is all assumed to be true and this simply cannot be the case because of all the contradicting information coming through.

The questioning of our paths in life and their ultimate outcome should be of utmost importance to us. Everybody wants free energy these days. Without a level of spiritual attainment gained by all on earth free energy would just save people gas on their way to fill the Grand Canyon with Polaroid wrappings. Spiritual advancement is gained by living life and keeping an open mind. There are definite and precise methodologies for awakening the mind but all written sources and all channeled sources disagree with one another. Where then do we look? We look at what ever sources we have available, trying always for a system in resonance with nature, and do our best not to believe that we have the answer. Always question authority. Test ideas, see if they work. Don't take anybody's word, but use their work as a basis for further expansion of your ideas.

Living in the trees adds to life, but no matter where you live there is room in your life for the natural patterns of thought. To be an active researcher you don't have to build fancy equipment or attain tremendous results, you just have to have an active mind. A constantly shifting belief system will give a proper scope of human life on this planet. And then we can all grow in harmony.

THE FOCUS

One important aspect of BSRF's work is in publishing information on radionics and radiesthesia. Many people write expecting to be healed by radionics. Everyone wants a free cure and they promise to be better afterwards. Radionics is just one facet of learning how to use the healing forces of the universe. Most people associate radionics with the actual equipment and this is not the case. The physical plane equipment is the first stage and relates to the element of Earth. The innermost fabric of the Earth element is the Life ether and in the physical stage we learn that even the most inanimate seeming substance has some sort of living energy. Our publication - The Morley-Martin Experiments - shows an area of research which will open the keys to physical life.

The next layer would be the watery or astral level. Here we deal with the same energies of life but in an ungrounded manner. This stage can be put to use through lucid dreaming and creating dream channels through harmonic physical shapes, smells and colors in the sleeping environment. This is where we learn that initiation in life prepares us for that initiation we fear most - non-physical existence. The Tibetan Book of the Dead should be examined.

The mental realm is comprehended in the airy element. If we took Napoleon Hill's THINK AND GROW RICH booklet as our gospel we would find ourselves trapped in this realm. Creative visualization and visualization of definite goals will produce real results in the physical. Here is the chance to transcend the ego-consciousness or to remain believing in one's central role in everything. The Light ether is available to sustain one more and more as they retreat from processed foodstuffs and move toward living food.

The spiritual realm is also the reflecting or Warmth ether. It can reflect what we believe as well as show us the Truth. We can tell if we are progressing by our environmental vibrations. Physical location makes no difference. The path of spiritual healing will bring one here and that is the end result of your first actions with a radionic instrument. This is a dangerous realm due to all the reflections of people's belief systems blinding the way. This is where we should reflect the forms and forces of nature and bring them into our lives and those who we are in touch with.

HUNDREDT MONKEY GROOVINESS

You've all heard the Hundredth Monkey story by now about how these monkeys' thought patterns created a field which spread to monkeys supposedly out of touch with the first bunch. The implicit analogy is that if we all concentrate on peace then we can have it. I'm a real optimist about peace and feel that it truly can be achieved, but like free energy it will take a planetary change in consciousness and there are definite forces who will work to prevent this from ever happening. Ah, the age old battle, and the more we put our consciousness on the side of life the closer we are. But I noticed some interesting info concerning the original monkey study.

In an interesting newsletter WIGGANSNATCH I read the following:

"In PAGANA #33, Russell Williams reveals that the hundredth monkey phenomenon is a myth, concocted by Lyall Watson and later embellished by Ken Keyes and others. According to Williams, the

primary research paper gives the exact date that each monkey on the island began washing their potatoes: An average of three per year from 1953-1957. The dramatic increase in the numbers of monkeys who washed their potatoes after 1958 was due to the fact that the original monkeys were now parents and were teaching the new behavior to their children. While isolated potato washing did occur on the other islands, the researchers were satisfied that the behavior must have been taught by monkeys they had observed swimming from Koshima to the other islands." Wiggansnatch - A Neo-Pagan Journal of Ideas and Personal Experience, issue #21, Laughing Otter Productions, POB 20061, Seattle WA 98102. \$2 an issue.

The Hundredth Monkey phenomenon still holds true, but in a different manner. Rather than just thinking about peace go out and do something. I don't have any ready answers but I can see that the monkeys learned by observation not from any level of consciousness attained by his peers. This should be a guide to us. If we acted more like monkeys and less like humans the world might be a cleaner place.

THE OLD ORDER

The "New Age" is an overused cliche and is with us to stay. The New Age should be one of actively participating in stopping the destruction of the natural order. The forests are going fast despite what you read in the papers. Progress is pushing animals from their homes. Where is an animal supposed to go? Sometimes man can only push so far. In the latest issue of Fortean Times there is an excellent compilation of articles on elephant attacks on villages in Sumatra, India, Bangladesh and elsewhere. The elephants are retaliating for encroachments on their territory. The Postscript to the article reads:

"There has never been an elephant 'problem'. There is no elephant 'problem'. There is only a human problem. Exceptionally, the Masai and the Nandi in Africa are reputed to know that the elephant represents another, older order of things; that they are survivors of another age, and consequently give them priority in matters of land tenure." Heathcote Williams.

The Fortean Times is the Foremost Journal of Strange Phenomena and an airmailed issue is \$3.00 from Fortean Times, 96 Mansfield Road, London NW32HX England. Each issue has an incredible amount of information on anomalies.

Perhaps we should pay attention to the elephants. They have bigger brains than humans and can communicate across great distances with subsonic (or ELF) waves. Like the whales their environment is ruined. As Tesla points out in the interview in this issue, sensitive people can hear many times farther than normal and this sound increase cannot be pleasant.

ELIXIR OF THE AGELESS

Our earth's surface consists mainly of water. Water is essential to all life on this planet. We have just received Patrick and Gael Flanagan's new book ELIXIR OF THE AGELESS which contains a lot of interesting information about water. The main line of the book is on colloids, which are finely divided particles of minerals which cannot be readily filtered from the medium they are suspended in. These colloids are the form in which we assimilate minerals into our bodies. These colloids apparently form crystals in water and

the crystals give water the living energy we need for health.

This book is an excellent sourcebook for information on water in general and it also has information on magnetic and psychic treatment of water, crystal treated water and other pertinent info that will help you understand what you drink. ELIXIR OF THE AGELESS is available from Vortex Press, 22 S. San Francisco St., Suite 219, Flagstaff AZ 86001. \$9.95 plus \$1 p & h.

PSIONICS 101

Here's a new book from Llewellyn Publications, Psionics 101 by Charles Cosimano. This book is for the person who wants to get results from their radionics instrument or wants to check out radionics but isn't sure how to actually get started. BSRF publishes many books on radionics but none of them is a beginners guide. This book accomplishes that task. The book is light and irreverent but don't let that put you off. This book will get you started if you are willing to practice.(Aha, there had to be a catch.) Once familiarized with the subject you can apply it to your life.

Psionics 101 is \$7.95 plus \$1.50 p & h from Llewellyn Publications, PO Box 64383, St. Paul MN 55164. Send \$2 to get the Llewellyn New Times newsletter and catalog.

CONTACTS

Contacts is a tool you can use to expand your mental work area. Check out the people and places listed but remember when you write, send a buck for postage or stamps. We accept no paid advertising.

* Natural Energy Works, PO Box 161983, Miami FL 33116. Here is a source for books on Wilhelm Reich and orgone energy. Also listed in the catalog are an Orgonotic Pulsation Demonstrator and an Orgonotester/Fluidometer, Radiation detectors, Computer radiation shields, and other interesting devices. Get some books and read.

* The Tesla Book Company, PO Box 1685, Ventura CA 93002, is now under the ownership of Jim Feuling in Ventura. This is the best source for the historical record of Tesla's work. The book TESLA SAID is one of the most important books published on Tesla's works. The article "Famous Scientific Illusions" is worth the price alone. Send \$1 for a current catalog.

* A BSRF Associate has two Gallimore Radionic Agricultural Units #2 would like to sell them. They are still in the original boxes and he's asking \$600 apiece. If interested then drop a line to BSRF.

* Associate Roy Oliver, 1434 Fremont Ave, Los Altos, CA 94022 is looking for someone who can build a radionic instrument for him. He would like a tuner along the lines of the Peter Lindemann schematic we ran last year.

* Garber Communications, 5 Garber Hill Road, Blauvelt NY 10913. Here is a good source for books by Rudolph Steiner and other spiritual writers. They publish a Dictionary of the Paranormal which should be a necessity to researchers and searchers. I've just heard of these people and their booklist looks quite good. The works of Steiner should be read. The couple books I have read so far show an advanced scope and the knowledge is not contained in a nutshell. Time to do some more reading.

BSRF BUSINESS

We would like to thank all the people who ordered books and resubscribed early to help us move. I take it as a vote of confidence in the Foundation. BSRF now has about 700 members and we are growing daily. I'd also like to thank all who have written with their good wishes and comments. I haven't been able to answer each letter yet but I will try. The work load is tremendous and we enjoy doing it but we can't keep up on all personal correspondence.

This Journal could have been at least 10 pages longer. I have so much more info that I wanted to fit, and new stuff comes in every day. I hope to get on a word processor soon so we can fit more into each issue. Feel free to submit an article or letter of comment on any facet of our work.

The 1986 financial report will appear in the May-Jun 87 JBR as our move delayed completion of the bookwork in time. The BSRF articles of incorporation provide that we run the report yearly to show the members our status.

We have been working hard to get new material out to our members and the final pages of this Journal will provide you with an overview of the last two month's work.

PRIMARY ENERGY WEATHER ENGINEERING

Trevor James Constable's article on the Pincer II weather operation which appeared in the last issue has elicited quite a response. Trevor has consented to release a video record of his operations carried out at sea.

Primary Energy Weather Engineering at Sea is an important record of actual documented evidence of primary etheric flows and their connection with the weather. Here is visual evidence of engineered weather fronts created with geometric weather guns. Trevor doesn't just give a fleeting glance or a one time fortunate stroke of luck, but he produces the storms time and time again. It is easy to deny a theory, but actual practice is evidence and when combined with the scientific method the world of orthodox science should take notice. I doubt if science will take notice of Trevor's work. Then they would have to admit the universe is comprised of living energy and they would have to stop smashing things apart to see how they work.

Besides being the best publicly released evidence of etheric energies this tape is also enjoyable to watch. The tape begins with Trevor showing the proceedings of the World Meteorological Organization on weather engineering. He points out how it is heavy reading and we know so when we hear it crash to the floor. Nowhere is there any mention of Trevor's or Reich's work on the subject. The credits list the crew of the Matson flagship, the USS Maui, who no doubt tolerate Trevor's experiments on their cargo runs. We see the skepticism of the crew who blame Trevor for the waves that crash over the side, but not the storms which appear from nothing like a clockwork. Hairstyling credits go to Mrs. Constable's hair salon showing that while producing some of the most important scientific work of our day, Trevor enjoys life to the hilt. Produced by Irwin Trent this is a well done, high quality video available in VHS or Beta. Limited edition, signed by Trevor.....\$60.00

NEW BSRF PUBLICATIONS

Proceedings of the Scientific and Technical Congress of Radionics and Radiesthesia, London, 1950. We have reprinted this classic collection of papers given by the British pioneers of Radionics. Included are articles by Dr. L.E. Eeman, Aubrey T. Westlake, George De La Warr, J. Cecil Maby, Dr. Michael Ash and others. This book is full of information pertinent to researchers today. The subjects covered are wide ranging and the scientific presentation is a record which can't be denied by true scientists. A congress such as this is needed today. The papers are presented for their intrinsic value and not to sell any products, which is what most presentations today seem to do. 200pgs, metal spirals.....\$22.50

The Science and Philosophy of the Drown Radio Therapy by Ruth Drown. This reprint is in keeping with our policy of getting the best info on radionics into the public record. Chapters include: Life as an energy, a consciousness and a substance; Life force and magnetism in relation to the body; The chemistry, physics and metaphysics of the body; and Radio-Vision photographs. This important book is now available for the first time since 1938.....\$7.50

The Eidophone Voice Figures - Geometrical and Natural Forms Produced by Vibrations of the Human Voice by Margaret Watts Hughes (1904). This reprint has photos taken of various forms created by singing differing notes and tones into a device which translates the notes into actual living forms. This is an important book for anyone who wishes to study the ethers and their effect on life.....\$5.00

MAGNETIC CURRENT by Edward Leedskalnin. This rare manuscript by the builder of Coral Castle is now available again. Besides being quite interesting, Edward give the reader various experiments to try in order to understand the forces he tapped to build his enigma. Also included is Mineral, Vegetable and Animal Life - Perpetual Motion Holder by the same author.....\$3.00

The Flying Roll - Vol II, Alpha II & Beta II. Here at long last is the reprint of Meade Layne's occult journal, vol II. Here are articles on the Santa Cruz Vortex, Determination of the ether drift, Mass thinking and the weather, an Atlantean device for hypnosis (with sketch), Prayer of the Gnomes, etc. Authors include Vincent Gaddis, Max Freedom Long and other researchers of the day.....\$6.00

The Living Sphere II edited by Alison Davidson. Here is BSRF's current occult journal. Articles include the Living Sphere, by Tom Brown, The Relation of Magick to Man by Jack Parsons, The Town That Died Accursed by Vincent Gaddis, Spiral Journey by Michael Theroux, Notes on the Cthulhu Mythos, Is Voudoo an Occultism?, and more. LS II is available now\$6.66
The Living Sphere will now appear 4 times a year. Subscriptions are \$20/year and can start with any issue.

The Cosmic Pulse of Life by Trevor James Constable. BSRF members are familiar with this book, published in 1976. It has been hard to procure but we have received a small quantity of the hardcover edition and they should be available for the next few months. These have been signed by the author.....\$20.00

Add \$2.00 p&h for the first 1 or 2 books and 50¢ for each additional book. BSRF members take a 15% discount off the listed price. Overseas airmail add sufficient postage. Californians add 6% sales tax!



P.O. BOX 429 ★ GARBERVILLE, CA 95440-0429 ★ U.S.A.

Bulk Rate
U.S. Postage
PAID
Garberville CA
Permit #15

FWD & RET
ostage Guaranteed
A C R

FOUR GREAT AMERICAN INVENTORS

On September 21, 1983, an inventor's stamp series was issued by the U.S. Postal Service. The four inventors honored are: Philo Taylor Farnsworth II (First Television Camera), Edwin Howard Armstrong (Frequency Modulation - FM), Charles Proteus Steinmetz (Electrical Engineering Theories), and Nikola Tesla (Three-Phase Alternating Current and Induction Motors).

The impact on our way of life for which these four great inventors were responsible has been tremendous, yet they are largely unknown.

In 1980, The Philo T. Farnsworth Foundation was formed by a group of Farnsworth supporters in San Francisco. With the aid of Philo's widow and son, Elma G. Farnsworth and Philo T. Farnsworth III, himself an inventor, they put on a drive for a commemorative postage stamp. A series of four inventors was suggested by Philo, III. They were Armstrong, Steinmetz and Tesla, who with Farnsworth, were four of our most innovative inventors and men of kindred spirit.

BSRF has obtained a quantity of these stamps on First Day Covers. Available are: Philo T. Farnsworth, Single stamp, first day cover in a folder with historical photos and pertinent information on Philo's life.....\$ 15.00

Block of the Four Inventors on a First Day Cover with folder containing photos and writeup.....\$ 20.00

Plate Block (numbered margin) of Four Inventors First Day Cover in Commemorative folder.....\$ 25.00

Add \$2.50 first class or airmail postage. Membership discounts do not apply to this special offering. Californians add 6% sales tax.